

In re: Harris et al.
Appl. No.: 09/824,395
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REMARKS

All of pending Claims 2 and 4 through 7 have been rejected as unpatentable under 35 USC § 103(a) over Yang et al., "Activity and Stability of Enzymes Incorporated into Acrylic Polymers," J. Am. Chem. Soc., 117, pp. 4843-4850 (1995) considered in combination with Greenwald et al. U.S. Patent No. 5,840,900. The Yang reference describes heterobifunctional poly(ethylene glycols) having an acrylate group on one terminus and an activated carboxylic acid on the second terminus. The reference shows attachment of the PEG derivative to a protein and incorporation of the resulting PEG protein conjugate into an acrylate polymer. However, the PEG backbone is not degradable and the protein was, in effect, permanently bound to the acrylate polymer. The Greenwald reference discloses a prodrug composition that contains a hydrolyzable linkage, including an ester linkage, between the polymer and a biologically active moiety.

There is no disclosure or suggestion in either of these references, whether considered alone or in combination, to provide a compound as recited in the pending claims that contains an acrylate functional group on one end and another different functional group on the opposite end and having polymeric segments that are separated by a hydrolytically degradable linkage. There is no disclosure or suggestion in the Greenwald reference to incorporate a hydrolyzable linkage into the backbone of a polymer rather than between the polymer and the biologically active group. Greenwald teaches incorporating a hydrolyzable linkage between a biologically active group and a polymer, but not in the backbone of the polymer. Moreover, there is no suggestion to include a hydrolyzable linkage between a biologically active compound and a heterobifunctional acrylate polymer, much less to incorporate such a linkage within the polymer backbone.

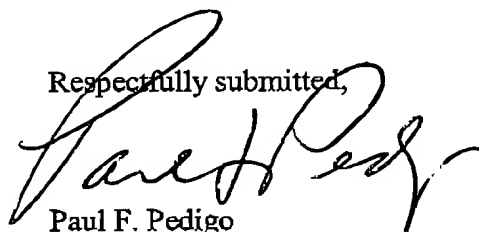
There is no disclosure or suggestion whatsoever in the cited references to incorporate hydrolyzable linkages between polymer segments and form a heterobifunctional acrylate polymer therefrom that can then be attached to a protein or used in an additional reaction, including polymerization reactions to form other polymers and hydrogels.

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New Claims 26 and 27 have been added directed to specific embodiments of the polymer segments and the hydrolytically unstable linkage taken from Claims 2, 4 and 6. It is believed that Applicant has made a substantial contribution to the art and that all of pending Claims 2, and 4 through 7, and 26 and 27 are in condition for immediate allowance. An early indication of the allowability of these claims is earnestly solicited.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



Paul F. Pedigo
Registration No. 31,650

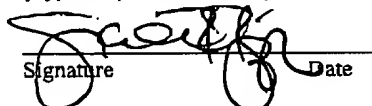
Customer No. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Charlotte Office (704) 444-1000
Fax Charlotte Office (704) 444-1111
CLT01/4538483v1

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